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ABSTRACT

A national video teleconference addressed the failure of basic skills and rote instruction to engage students in learning and to promote understanding in ways consistent with the realities of an information-based society. Focusing on instructional strategies that actively engage students in what they are learning and that help them connect learning to the world outside of school, the first three presentations discuss: (1) the development of academic tasks that promote meaningful science learning; (2) instructional strategies that help teachers use problem-solving and communication in mathematics education; and (3) the use of informal writing as a way of helping students understand. Program interventions with a similar orientation toward learning are described in the remaining three presentations. One of the programs concerns using parents to support instruction in an early reading program involving teachers, parents, and community leaders; another, called "Finding Out/Descubrimiento" is a cooperative learning, hands-on approach that promotes higher level thinking about mathematics and science in second language instruction; and the third is the Choice and Challenge Program, which is designed to keep rural students in school. (RH)

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The Failure of Basic Skills: Who's at Risk?

A National Video Teleconference

Presented by

North Central Regional Educational Laboratory

and

Public Broadcasting Service

April 6, 1989

Beverly J. Walker

Editor

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The Failure of Basic Skills: Who's at Risk?

What is This Teleconference About?

This teleconference addresses one of the most serious crises facing our schools today — how our instructional program is failing to prepare students for a changing America, a society in which information, not production, will control our way of life. In this information-dominated society, instructional practices that focus on basic skills and rote instruction are putting more and more of our kids at risk of not becoming successful, productive adults. The ability to manipulate, interpret, analyze, and reconstruct knowledge will become critical literacy skills of the future. Yet, too many of our youngsters think that learning is answering chapter questions, passing multiple choice tests, memorizing definitions and lists, and computing "right" answers. Indeed, many of the national assessment tools —in the various content areas — suggest that these same students cannot think critically, make reasoned decisions, solve problems, write persuasively and analytically, or learn independently.

Basic skills instruction is a failure because it does not engage students actively with learning. Moreover, it does not promote understanding. As a result, kids are not making the connections between what they already know and new information (i.e., they don't know what to do with their minds when they are learning), nor are they recognizing the usefulness of school-based knowledge and learning for their lives (i.e. they don't care about what's going on in the classroom). This disconnection with learning is affecting all kids — not just those traditionally seen as "at-risk." Thus, the problem is not new, just growing.

This teleconference will challenge beliefs and practices supporting basic skills instruction and offer alternatives. To prepare students for an information-dominated society, schools must:

- increase, not limit, the number of students who have access to higher level content and thinking strategies
- teach conceptual understanding, not rote memorization
- promote interactive teaching strategies, not lecturing and telling
- encourage cooperative learning, not passive, individualized seatwork

As participants in "The Failure of Basic Skills: Who's at Risk?," you will see instructional strategies and programs that actively engage students in what they are learning and that help them connect learning to the world outside of school.

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The Teleconference Program : *An Outline*

Introduction

Judson Hixson, moderator, Program Director, NCREL

Classroom Strategies

Charles Anderson, Teaching Science for Conceptual Understanding

Mary Lindquist, Making Sense of Mathematics

Richard Beach, Using Informal Writing to Reflect and Connect

Interactive Panel Discussion with Anderson, Lindquist, and Beach

Break

Program Interventions

Patricia Edwards, Using Parents to Support Reading Instruction
"Parents as Partners in Reading," Donaldsonville, LA

Edward De Avila, Learning to Think in Second Language Instruction
"Finding Out/Descubrimiento"

Donna Alvermann, Reconnecting Kids to Learning
The Choice and Challenge Program, Lexington, Georgia

Interactive Panel Discussion with Edwards, De Avila, and Alvermann

Summary and Wrap-up

The Presenters — In Brief

Teaching Science for Conceptual Understanding

Charles Anderson, PhD

Senior Researcher, Michigan State University's Institute for Research on Teaching
Former classroom teacher
Numerous publications on the teaching and learning of science in classroom contexts

In his segment, Charles Anderson lays out an agenda for good science teaching. He describes a pattern of failure in today's science classes, in which students memorize facts and definitions that have little meaning for them, and in which students cannot make sense of science concepts. Meaningful learning, he maintains, must help students to a) actively construct new knowledge; b) make connections between new knowledge and personal beliefs; and c) use their knowledge for worthwhile purposes. He focuses on developing academic tasks — classroom questions and answers — that promote meaningful science learning.

Making Sense of Mathematics

Mary Lindquist, PhD

Callaway Professor of Mathematics Education
Columbus College
Columbus, Georgia
Author, elementary mathematics series
Member, NCTM Standards Committee
Chair, Interpretive Committee, NAEP Mathematics Assessment

In her segment, Mary Lindquist uses results from the National Assessment of Educational Progress (NAEP) and recently released standards from the National Council of Teachers of Mathematics (NCTM) to outline new teaching goals for mathematics instruction. Using guidelines from NCTM, she models instructional strategies that help teachers use problem solving, communicating, and making connections to build students' conceptual knowledge and understanding of mathematics. She illustrates teaching in which connections are being made, students are thinking, and students are talking in mathematics class.

Using Informal Writing to Reflect and Connect

Richard Beach, PhD

Professor of English Education
University of Minnesota
Author, forthcoming literature methods textbook

In his segment, Richard Beach describes how teachers can use informal writing techniques to help students reflect on what they read and learn and connect new knowledge to past knowledge. Dr. Beach shows how informal writing, such as freewriting, journal writing, and letter writing, can help students truly understand texts, lectures, and discussions, by having them articulate and elaborate on the ideas in their own words. A videotaped classroom scene shows a teacher at North High School, in Minneapolis, Minnesota, modeling Dr. Beach's approach. The videotape was produced at Studio North, a student-run production facility at the high school.

Using Parents to Support Reading Instruction

Patricia Edwards, PhD

Assistant Professor of Reading, Louisiana State University (on leave)
Senior Researcher, Center for the Study of Reading, University of Illinois
Extensive publications on establishing home/school partnerships in minority communities

In her segment, Patricia Edwards discusses parent involvement in reading, focusing on an early reading program she developed and implemented in Donaldsonville, Louisiana. Dr. Edwards helped teachers, parents, and community leaders in Donaldsonville learn how to work together to improve the reading skills of very young children. The program, called "Parents as Partners in Reading," is designed to help improve the chances of lower SES children to be successful in school. Parents develop skills in reading to their children, and learn to recognize good reading behavior. Dr. Edwards' program was recently featured on a nationally-broadcast PBS special, "First Things First," hosted by Phylicia Rashad of "The Cosby Show."

Learning to Think in Second Language Instruction

Edward De Avila, PhD

Program Designer and Researcher
Co-author, Language Assessment Scales
Co-author, The Language Minority Child: A Social, Linguistic, and Psychological Analysis

In his segment, Edward De Avila introduces you to a successfully implemented program in mathematics and science called Finding Out/Descubrimiento. This program combines cooperative learning techniques with a hands-on approach to promote higher level thinking in second language instruction. It helps students acquire a broader repertoire of skills and knowledge by building on their natural interests in mathematical and scientific phenomena — questions that kids have.The program also increases the access of language minority youngsters to mathematical and scientific knowledge by 1) promoting conceptual development, not rote memorization of names and lists; and 2) offering linguistically heterogenous class groupings in which all students have the opportunity to talk with others about complex, high level material.

Reconnecting Kids to Learning

Donna Alvermann, PhD

Associate Professor of Reading, University of Georgia
Former classroom teacher
Senior author, elementary reading series

In her segment, Donna Alvermann introduces you to the Choice and Challenge Program at Oglethorpe County High School in Lexington, Georgia. This project is working to keep rural students in school. At the heart of the Choice and Challenge Program is an attempt to mold schooling to the needs of students, recognizing that not all children progress at the same rate toward the same academic goals. Dr. Alvermann highlights various aspects of the program that are helping to reconnect kids to learning. You will see a typical school day in the Choice and Challenge program and listen to students talk about their academic and social experiences in the project. A videotape shown during the segment, was planned and scripted by the students themselves.

Teaching Science for Conceptual Understanding

by Charles W. Anderson

Science Education Today: Who's at Risk?

Recent research on science teaching and learning reveals a number of results that are of deep concern to people who think about science education in our schools. For example, when Yager & Yager (1984) tested students' ability to select correct definitions for terms from the biological and physical sciences, they found evidence that seventh graders did better than third graders, but there was no improvement at all between seventh and eleventh grades, despite the fact that most students take several science courses in between. In the most recent studies of science achievement by the IEA (1988), American high school seniors were dead last among 13 ranked countries in their assessed biological knowledge; they ranked eleventh in chemistry, ninth in physics. Indeed, other studies have found that only 48% of American adults know both that (a) the earth revolves around the sun, rather than the other way around and (b) that it takes a year to do so, rather than a month or a day. (Jon Miller, 1988)

These studies, and others like them, reveal that learning with understanding is limited to a few of the best students in most science classes, often no more than 5 to 10 percent. The remaining students, a large majority, are memorizing facts and definitions that have little meaning for them, and are soon forgetting them. The evidence, then, shows that most of our elementary and secondary students are "at risk" in their science classes; only a few are making sense of the content to which they are exposed.

What is Good Science Teaching?

For the past nine years, my colleagues and I have been engaged in research investigating the nature of good science teaching (cf., Anderson, 1987; Anderson & Roth, in press; Anderson & Smith, 1987). We have seen that the pattern of failure described above is widespread, but not universal. There are teachers who are helping many or most of their students learn science with understanding, and we have been successful at helping many teachers improve their success through teacher education programs or teaching materials that we have developed. In the process, we have made some generalizations about successful science teaching.

One way of describing good science teaching is by looking at what the students are doing in the classrooms of successful science teachers. In general, those classrooms reflect a style of learning that has much

in common with successful learning in other subjects. Thus, students who are learning science successfully generally engage in activities that have the following characteristics:

Characteristics of Meaningful Learning

1. Active construction of new knowledge
2. Ability to make connections between new knowledge and personal beliefs
3. Ability to use knowledge for worthwhile purposes

But what can teachers do to help students engage in these kinds of activities? We have found that there is no simple answer to this question. It would be nice if good teaching were like safe driving, if there were a few basic rules to follow that would assure that students were engaged in active, useful, connected learning. Unfortunately, this is not the case. Good teaching is actually like building a house: it is a complex, multifaceted achievement that requires a lot of knowledge and sustained effort.

Teachers, of course, don't build visible structures like houses, which means that they often don't get credit for the complexity of the work that they do. Good teachers, though, do build up extensive, complex invisible classroom "structures" during their work with their students. For the lack of a better name, I will call these patterns of practice. A pattern of practice has many components, including:

- the social environment that the teacher creates in the classroom
- the strategies that he or she uses to help students understand difficult content
- the teaching materials and the manner of their use

Every teacher builds some sort of pattern of practice, but not all patterns of practice help students learn science with understanding. In fact, developing a pattern of practice that engages students in meaningful learning is an extremely complex and difficult task. Since it is impossible to address all aspects of this task in a short discussion, I will focus on one aspect of every teacher's pattern of practice: the academic tasks that students are asked to do.

By academic tasks, I mean the work that students do in the classroom, the kinds of questions that they answer and the activities in which they are involved. Thus, one part of building a successful pattern of practice is developing academic tasks that will help students (a) actively construct new knowledge, (b) make connections, and (c) use their new knowledge.

How to Develop Good Academic Tasks

Many teachers have a hard time developing good academic tasks because they think of scientific knowledge as facts. That is, at best, a

half truth. Scientific theories are also tools that help us to understand and control the natural world

Meaningful Learning:
Using Knowledge for Worthwhile Purposes

In developing academic tasks that help students learn how to use scientific concepts and theories, it is especially important to consider how people use scientific knowledge in out-of-school situations. If the purposes for which our students find scientific knowledge useful do not extend beyond passing science tests in school, then we have failed in our obligations to help them become scientifically literate. Thus, successful science teachers must develop questions and activites that give their students practice in using scientific knowledge. Students must be engaged in using scientific knowledge for worthwhile purposes.

Four types of activities for which people commonly use scientific knowledge in out-of-school situations are *description*, *explanation*, *prediction*, and *control* of real-world systems or events. These classes of activities are described below.

1. *Description.*
Scientific knowledge is often used for purposes that are essentially descriptive in nature: providing names for things, measuring them, classifying them, or describing them. The ability to provide precise and accurate names, descriptions, or measurements of natural systems or phenomena is one characteristic of a scientifically literate person.

2. *Explanation.*
Explanation is a primary goal of science. We acquire scientific knowledge and develop theories because we want to explain how the world around us works. Thus, a scientifically literate person should be able to use scientific knowledge to explain how natural systems work, why various phenomena occur, or why the world is as it is.

3. *Prediction.*
The ability to generate accurate predictions is a key test of the validity of a scientific theory as well as an important use of scientific knowledge. Thus, scientifically literate people often use their scientific knowledge to generate predictions about future observations or events.

4. *Control.*
Scientific knowledge also plays an essential role in making our lives healthier and more comfortable and in giving us greater control over our environment, especially through the development and use of technology. Many of the justifications for teaching science in our

schools concern the development of technological competence and knowledge of essential for making decisions about technological issues for workers and citizens.

How can we design academic tasks that engage students in using their scientific knowledge to describe, explain, make predictions about, or control the world around them? Let us consider how this problem can be solved for a specific topic, such as the teaching of photosynthesis at the middle school level. Consider the two lists of questions below:

List 1

What is the definition of photosynthesis?
The process by which plants make their food is called _____.
The products of photosynthesis are _____and _____.
Photosynthesis takes place only in _____ _____.

List 2

How do plants get their food?
Why do plants have leaves?
What will happen to a plant that is left in the dark? Why?
Does food travel up or down the stem of a bean plant?

List 1 consists of the kinds of questions typically found in middle school science textbooks. These are questions about photosynthesis; they treat photosynthesis as a fact, something to be looked up, copied, and memorized. List 2, on the other hand, consists of questions about plants that students can answer, using the concept of photosynthesis as a tool. They are much closer to the kinds of questions that scientists were asking when they discovered the concept of photosynthesis in the first place.

This does not mean that students do not need to know the answers to questions like those in List 1. In fact, scientific answers to the questions in List 2 depend on students' having the knowledge addressed by List 1. However, when students are asked to answer only questions like those in List 1, they are denied the opportunity to practice using their scientific knowledge.

Meaningful Learning: Connecting personal and scientific knowledge

Making connections between scientific knowledge and students' personal knowledge is another important dimension of meaningful learning. In comparing the questions in List 1 with those in List 2, students' answers to the questions in List 1 will reveal little about their personal knowledge. They will generally either produce the accepted scientific answers or say that they don't know. (They may also guess if a grade is at stake.)

The questions in List 2 are different, however. Even before they begin to study photosynthesis, many students will answer these questions in

ways that reveal many thoughts and ideas about plants, about food, and about food for plants (see also Anderson & Roth, in press). Some of these ideas are useful and scientifically correct: many middle school students understand that there is an association between food and energy (or calories), for example. Other ideas that students commonly reveal are problematic, however, such as their tendency to associate food and eating. Middle school students know that food is what you eat. They reason, therefore, that food for plants is what plants "eat" — water and soil minerals (or "plant food"). This belief is in conflict with the scientific idea that photosynthesis is the process by which plants make their own food.

Middle school students' beliefs about plants' structure and function show a similar mixture of acceptable and unacceptable beliefs. Most middle school students, for example, understand that plants are living organisms. Thus, they naturally try to understand how plants work by analogy with more familiar organisms, such as animals. In their attempts to make plants comprehensible, they reason that they must engage in functions similar to those of animals, including eating and digestion. The basic idea of photosynthesis is that plants do not eat and they do not digest food; they make their own food.

Thus, middle school students begin a unit on photosynthesis with a complex mixture of correct and incorrect beliefs about plants and how they get their food. This is true not only for photosynthesis, but also for just about any other topic in the science curriculum. However, teaching for meaningful understanding of science involves not only giving students new knowledge but figuring out which prior beliefs are correct and which are not, and rearranging their ideas. This is the process of conceptual change. Academic tasks like those in List 2 aid the process by bringing out students' prior knowledge and beliefs and by giving them a chance to see how their ideas compare with accepted scientific knowledge.

Conclusion

Developing better academic tasks is necessary but not sufficient to improve the quality of students' learning in science classes. Simply asking students to answer questions like those in List 2 will probably lead to failure and frustration unless they are well supported in their efforts to develop answers to those questions. Students need a social environment that encourages them to see science as a sense-making activity; they need teaching strategies that give them opportunities for structured practice and feedback; and they need a curriculum that does not always move on to a new topic every week. Academic tasks, therefore, represent only one part of a teacher's pattern of practice. Successful learning depends on how the pattern works as a whole.

It is possible for teachers to change their patterns of practice, though the changes cannot occur overnight. Better teaching materials, good teacher education programs, systems of assessment that encourage teaching for understanding, and patterns of school organization that give teachers time to plan and reflect can all help the process along (cf., Anderson, 1987; Anderson & Roth, in press; Hollon, Anderson & Roth, in press). The experience of other professions, such as medicine, engineering, or agriculture indicates that many small improvements can have a large cumulative effect over time. This happens, however, only if those small improvements are guided by some sense of shared purpose or direction. A determination to help science teachers gain access to and use new knowledge to develop more effective patterns of practice could help to provide our profession with such a sense of shared purpose.

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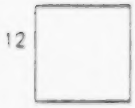
Making Sense of Mathematics

by Mary Lindquist

What is the area of this rectangle? (30 sq. units)



What is the area of this square? (144 sq. units)

	Percent Correct	
	Grade 7	Grade 8
	46	70
	13	44

Figure 1

Suppose you have 8 coins and you have at least one of a quarter, a dime, and a penny. What is the least amount of money you could have? (41 cents)

Percent Correct	
Grade 7	Grade 8
23	43

Figure 2

Percent Correct on items from fourth NAEP mathematics assessment.	*Percent Correct*		
	White	Black	Hispanic
242 – 178	86	82	82
504 – 306	86	76	81
213 x 12	80	69	75
3 1/2 - 3 1/3	58	36	34
4 x 2 1/2	61	41	44
Two step word problem	57	35	38
Percent word problem	41	22	34

Figure 3

Need for a change in the curriculum for all learners

The report to the nation on the future of mathematics education, *Everyone Counts*, (1989) builds a strong case for the reasons that we need to change our view of mathematics, of mathematics learning, and of mathematics teaching. Although there is a plethora of comparative research showing poor performance in mathematics, there are some data from the most recent national assessment (NAEP, 1986 mathematics assessment) that point to some of the underlying difficulties: lack of conceptual understanding, lack of problem-solving skills, and lack of opportunity for all students to leave junior high school with a strong elementary mathematics background.

These results are typified by the data in figures 1-3. We will discuss these results during the telecast. See if you can give reasons for the results. For example, why do students do less well on finding the area of a square than of a rectangle (Figure 1)? What causes the difficulty with the problem in Figure 2? What patterns of differences do you see in Figure 3 and why?

Standard 1: Mathematics as Problem Solving

In grades 9-12, the mathematics curriculum should include the refinement and extension of methods of mathematical problem solving so that all students can:

- use, with increasing confidence, problem-solving approaches to investigate and understand mathematical content
- apply integrated mathematical problem-solving strategies to solve problems from within and outside of mathematics
- recognize and formulate problems from situations within and outside of mathematics
- apply the process of mathematical modeling to real-world problem situations

Figure 4

Standard 2: Mathematics as Communications

In grades 5-8, the study of mathematics should include opportunities to communicate so that students can:

- model situations using oral, written, concrete, pictorial, and algebraic methods
- reflect upon and clarify their own thinking about mathematical ideas and situations
- develop common understandings of mathematical ideas, including the role of definitions
- use the skills of reading, listening, and viewing to interpret and evaluate mathematical ideas
- discuss mathematical ideas and make conjectures and convincing arguments
- appreciate the value of mathematical notation and its role in the development of mathematical ideas

Figure 5

Standard 4: Mathematical Connections

In grades K-4, the study of mathematics should include opportunities to make connections so that students can:

- link conceptual and procedural knowledge
- relate various representations of concepts or procedures to one another
- recognize relationships among different topics in mathematics
- use mathematics in other curriculum areas
- use mathematics in their daily lives

Figure 6

New directions

The National Council of Teachers of Mathematics released in March a forward looking document, *Curriculum and Evaluation Standards for School Mathematics*, (1989) that sets forth the views of the professional organization of mathematics teachers. The document set national expectations while allowing and encouraging local initiatives.

The 40 curriculum standards are divided into three levels: grades K-4, grades 5-8, and grades 9-12. The 14 evaluation standards cut across all grades as well as look as program evaluation. The standards portray mathematics as something that one does, as a subject that makes sense and is useful, and as a subject that all students can learn.

The first four curriculum standards at each of the levels address problem solving, communicating, reasoning, and connections. These are followed by content standards that are appropriate for the level. But it is the first four that exemplify the tone of all the standards. As you look at Figures 4-6, try to imagine what characteristics a classroom must have to encourage this type of learning. The discussion in the standards document illustrates the bullets that are included in this guide.

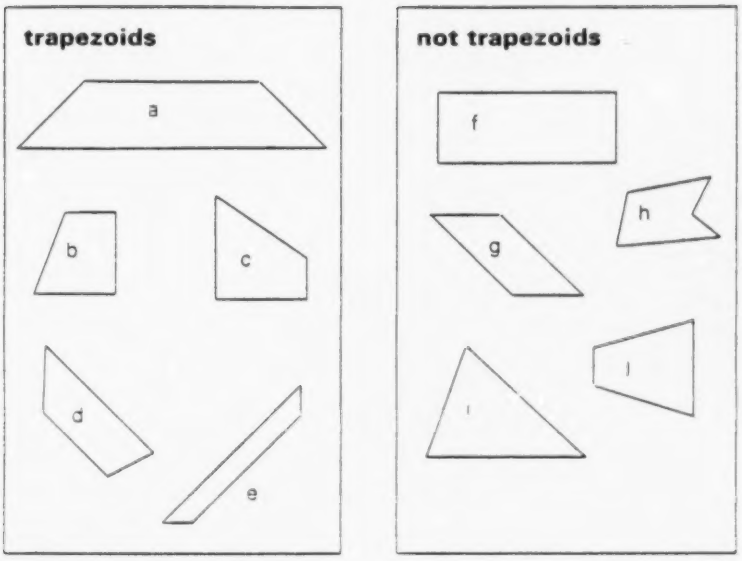


Figure 7

Samples of teaching concepts and problem solving

Concepts

Ask yourself about the quadrilaterals (four-sided polygons) in Figure 7? What is the same about all the ones called trapezoids? Why do each of the other shapes fail to qualify as a trapezoid? Can you write a definition of a trapezoid from studying the examples.

Look now at some properties of a trapezoid that you did not use in your definition. The chart in Figure 8 may help you start.

Your Definition:

Quadrilaterals

	Square	Rectangle	Parallelogram	Trapezoid
What is it?	A square is a rectangle with 4 equal sides.	A rectangle is a parallelogram with all right angles.	A parallelogram is a quadrilateral with 2 pairs of parallel sides.	A trapezoid is a
What does it look like?				
What properties?	4 equal sides 4 right angles 2 pairs of parallel sides	opposite sides are equal 4 right angles 2 pairs of parallel sides	opposite sides are equal oppsite angles are equal 2 pairs of parallel sides	
Diagonals?	equal perpendicular bisect each other	equal bisect each other	bisect each other	
Line symmetry?	4 lines	2 lines	none unless special	
Perimeter?	add the sides	add the sides	add the sides	
Area?	A=bh	A=bh	A=bh	

Figure 8

Isolated procedures are difficult to remember

Isolated procedures do not transfer well

Too many procedures to learn individually

Difficult to remember when to use what

Destructive attitudes and beliefs are promoted

Figure 9 Consequences of learning procedures without connecting them to conceptual learning

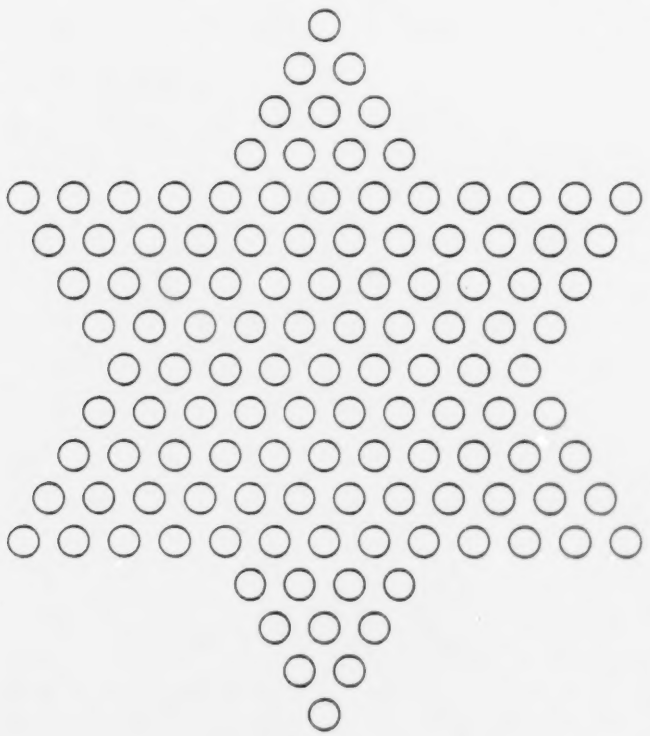


Figure 10 How many marbles to fill the entire Chinese Checker board?

Although this is an example from geometry, it could be used in any of the topics in mathe matics or in other subjects. If we let students make mathematics their own, then it will become a subject that makes sense. If we fail to do so, then we will reap the consequences caused by having students learn procedures without understanding them (See Figure 9.)

Problem Solving

If we are to teach students to become problem solvers, we must also be willing to try a variety of problems. A child once asked me how many marbles it would take to fill the entire Chinese checker board. Can you find an efficient way to count them?

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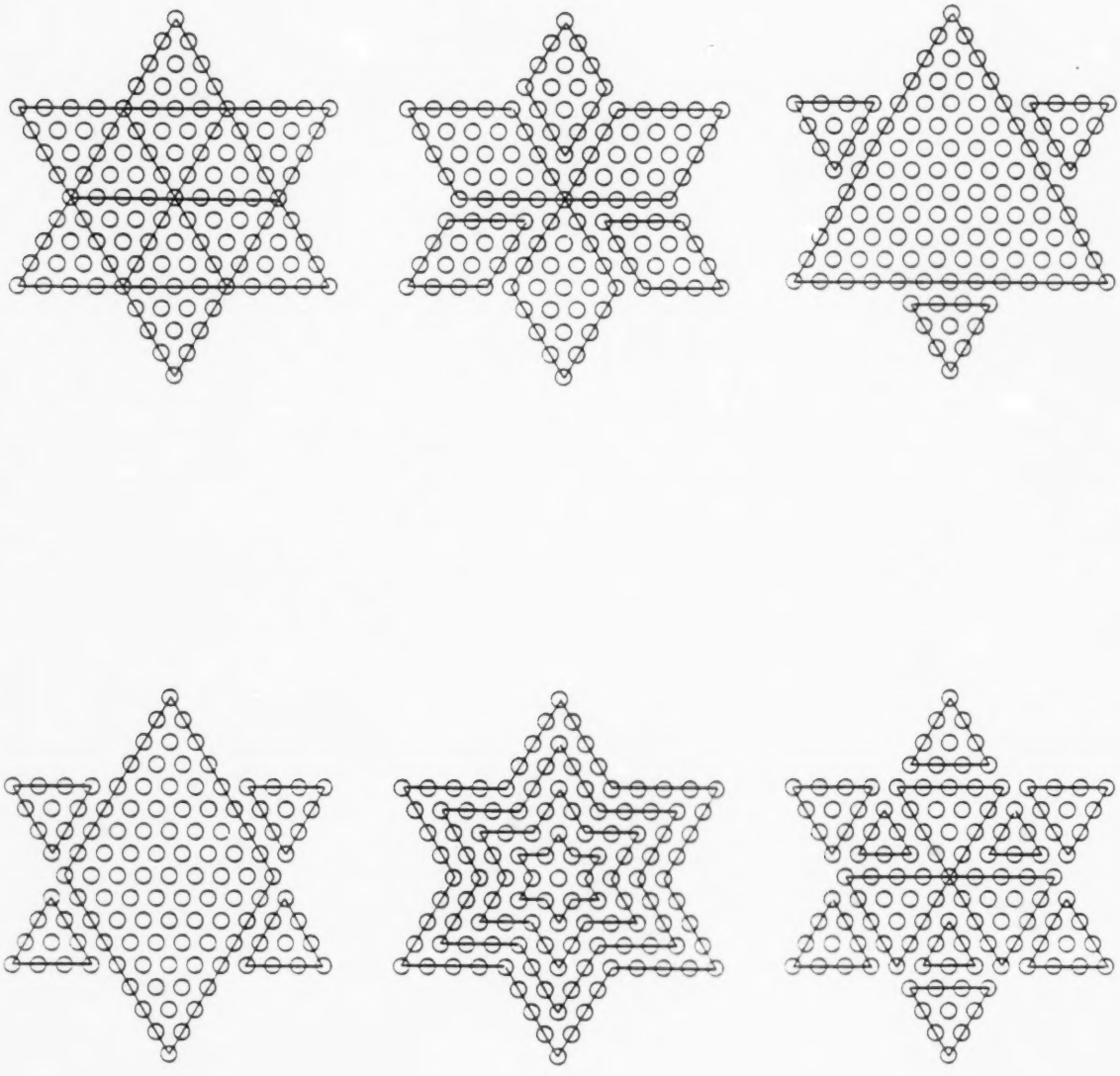


Figure 11 Diagramming of sample solutions (Answer=121)

Using Informal Writing to Reflect and Connect

by Richard Beach

Using Writing to Learn

Teachers use informal writing to foster two kinds of learning — learning to reflect and learning to connect. Students often have difficulty reflecting on their reading or discussions. And, they have difficulty defining connections between their current reading or discussions and past knowledge. Informal writing in the form of freewriting, journals, or letters can help students reflect and connect. And, by using informal writing to articulate the ideas presented in their reading and discussions in their own words, they may better understand those ideas and may be more willing to share those ideas in discussions.

Types and Characteristics of Informal Writing

Informal writing differs from formal essay writing. While formal essays are typically organized, definitive, structured, coherent, objective, and logically argued, informal writing is typically unorganized, spontaneous, open-ended, unstructured, exploratory, and subjective. Informal writing may take many forms, including freewriting, journal writing, letter writing, and mapping.

Freewriting

Freewriting consists of nonstop "rush-writing" in which students write as quickly as possible in five to ten minute intervals. In so doing, students should not be concerned about editing for spelling, punctuation, or syntax. Nor should they be concerned about their audience, because no one but themselves will be reading their writing.

Freewriting may be focused or nonfocused. When it is focused, students are told to write about a particular text or topic. Focused freewriting can help students articulate their thoughts about a specific reading or a topic prior to participating in a class discussion or to writing the first draft of an essay.. When freewriting is nonfocused, students simply write about anything that comes to mind. Nonfocused writing can help students explore ideas or discover a topic for a paper.

The example to the left is a student's focused freewriting about a short story, "Priscilla and the Wimps." In this freewriting, the student is expressing her feelings, using informal and incomplete sentences, and she adopts an exploratory stance. She uses her emotional reactions — her positive response to Priscilla and the fact that "evil" gangs "can be destroyed," as springboards for her thoughts.

"The character that I liked the most was Priscilla because of her power over the mean boys. Usually in books you don't come across girls defending people from an evil, vicious gang. But she took advantage of her position. I like the fact that the gangs who are evil can be destroyed or intimidated by a strong character. They put on a mask, they try to act tough by showing off, but they are only "wimps," whereas Priscilla uses her power only to defend and help other people."

Journal writing

Journal writing consists of a log or series of entries written in an informal manner. In some cases, students write their journal in the form of letters addressed to a peer or a teacher.

Recording Thoughts

Students may keep journals to record their thoughts while reading texts, solving a problem, or listening to a discussion/lecture. For example, in reading a novel, they could use the journal as a log to keep track of specific episodes and characters in the novel. One technique for helping students learn to use the journal to reflect is to have them record their perceptions on the left side of the journal. Then, on the right side, they can reflect the meanings of their perceptions.

As illustrated below, on the left side of her journal, a student wrote her perceptions of what happened in the story, "Priscilla and the Wimps." Then, on the right side, she wrote her reflections on the meaning of these incidents.

A Sample Journal Entry

Story episodes	*Reflections on these episodes*
Mona Klutter and his gang, the Kobras, harass students in the hallways.	These boys think they that they can control the school through physical power.
Most students are afraid of the Kobras.	This shows that the students can easily be intimidated.
The Kobras go after Melvin, the smallest kid in the school.	The gang really likes to pick on kids who don't threaten them.
Priscilla defends Mel shoving Monk in a locker and locking the door .	This shows that Priscilla is willing to stand up to the gang for the sake of her friends.

Using letters as entries

In her book, *In the Middle*, Nancie Atwell advocates the use of letters to the teacher or to peers as journal entries. One advantage of letters is that, by addressing the letter to a teacher or peer, the student has a clear sense of audience and purpose.

Responding to students' journals

In responding to students' journal entries or letters, teachers need to create a written dialogue with students—posing genuine questions or discussing their own reactions. This is called dialogue -journal writing. By responding to questions and internalizing the teachers' questions, students learn to elaborate on their entries. Analysis of urban Los Angeles students' journals indicated that by engaging in dialogue-journal writing, students demonstrated increased elaboration of their thoughts over time (Staton, 1988).

"I think your point about gangs putting on their "masks" is really interesting. I often think that a lot of people try to create a pose in order to impress others or to avoid making friends. Unlike the other students, Priscilla doesn't seem to be intimidated by the "mask." I wonder why?"

In giving "reader-based" responses to writing, teachers describe their own reactions as readers, creating a relationship with the student in which the teacher and student mutually explore ideas. In the example to the left, a teacher responded to the student's freewriting about Priscilla by indirectly inviting the student to continue the written dialogue.

Mapping

Another form of informal writing is mapping. In drawing maps, students can visually present their thoughts. By putting the key ideas in middle circles, and then extending those ideas with specific examples/instances, students are elaborating on their ideas.

For example, in the top half of the sample map on page 23, a student has portrayed the relationships between major characters in "Priscilla and the Wimps," along with various actions, traits, and goals associated with those characters.

Uses of informal writing

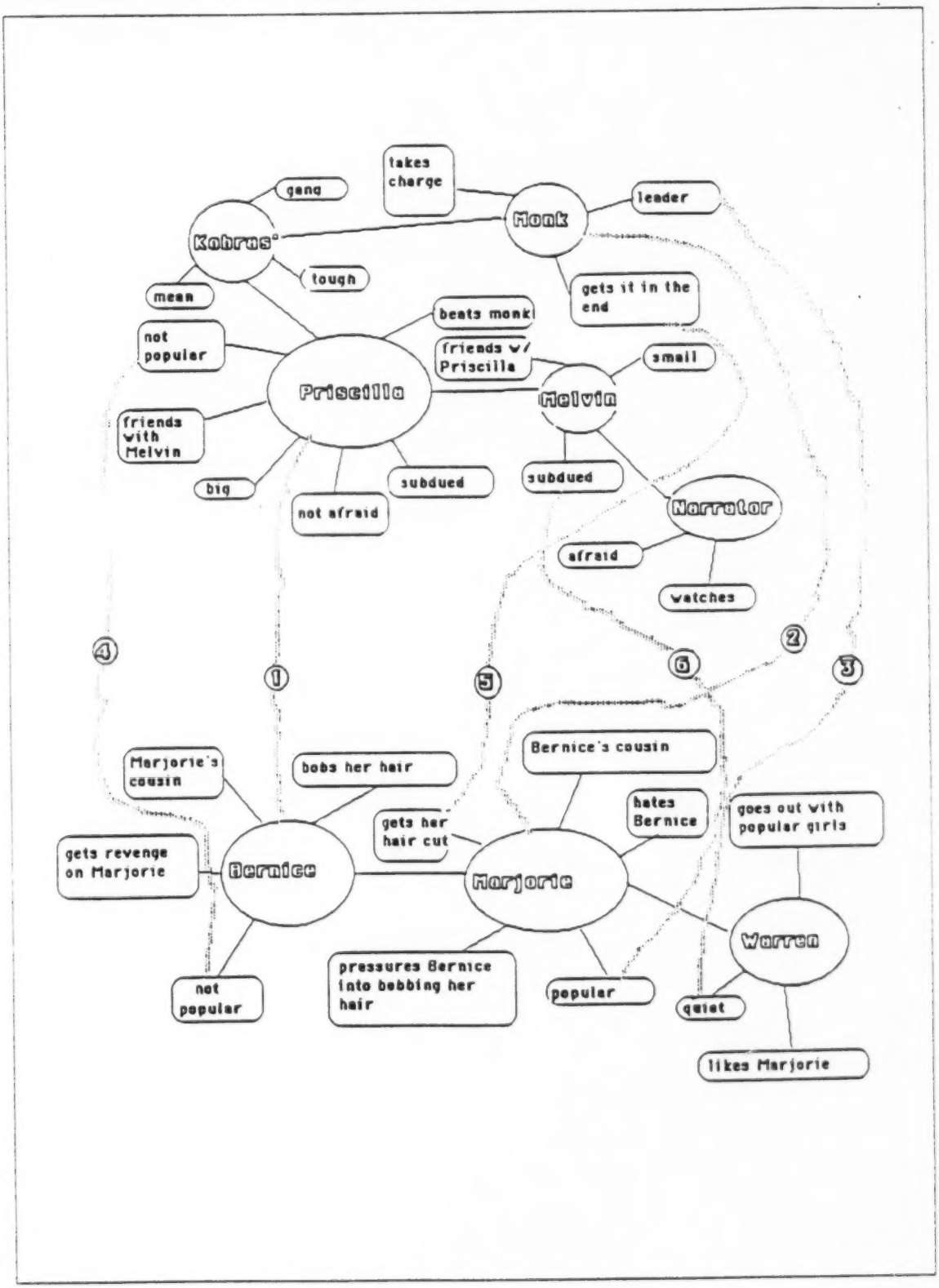
Informal writing can be used in a number of ways to enhance learning:

- Reducing apprehension about writing
- Generating ideas or topics
- Creating a record of one's thoughts
- Focusing attention
- Preparing students for discussion

Using informal writing to connect

Students can also use informal writing to connect current topics, concepts, or texts with previous topics or related concepts/texts. Defining these connections helps students recognize that their previous knowledge is relevant to understanding their current experiences. For example, in order to help students define the usefulness of previous knowledge, students could use the "K-W-L" technique (Ogle, 1986). They could freewrite about what they ***know*** about a topic or concept, what they ***want*** to learn about a topic or concept, and what they have ***learned*** about a topic or concept.

Students can use informal writing to recall past experiences. By free-associating in writing about the topic or text, students may be reminded of other topics or texts. For example, having read a short story about a girl getting to know her aunt, students could recall their own experiences with getting to know their relatives. Or having read about a certain battle in history, students could recall other similar battles.


takes charge
gang
leader
Monk
Kohrns'
tough
mean
gets it in the end
beats monk
not popular
friends w/ Priscilla
small
Priscilla
Melvin
friends with Melvin
big
subdued
not afraid
subdued
Narrator
afraid
watches
4
1
5
6
2
3
Marjorie's cousin
bobs her hair
Bernice's cousin
hates Bernice
goes out with popular girls
gets her hair cut
gets revenge on Marjorie
Bernice
Marjorie
Warren
not popular
pressures Bernice into bobbing her hair
popular
quiet
likes Marjorie

By elaborating on these connections, students use their writing to discover and explore similarities and differences. For example, in the map for "Priscilla and the Wimps," the student connected that story to another story, "Bernice Bobs Her Hair," by F. Scott Fitzgerald. By elaborating about the different aspects of the stories and drawing lines to connect these stories, the student was able to define similarities between the two stories, particularly in understanding the idea of revenge.

Combining types of informal writing.

One type of informal writing can be used to prepare students for other types of informal writing. For example, in the classroom segment with Ms. Harris, the students used their freewriting about a poem to prepare them for listing similarities and differences between the poem and their experiences.

Modeling the processes of informal writing

In using informal writing in the classroom, it is important to model the processes of informal writing. Teachers can show students how to use informal writing by talking about their own uses of freewriting, journal writing, or mapping, or by giving students samples of such writing.

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25

One Night Fair

by Nancy Price

A traveling fair pitched by our pasture gate
once. I still remember the ferris wheel's
yellow lights going around the dark
like a slow mill, only it spilled a freight
of music-run, not water, and girls' squeals
from bucket seats. We rode that contraption late
and long as our nickels lasted. Like a lark
you rode that thing up to music, hung
over our barn lot, pig pens; then you froze,
cleaving your way back down, a dead weight,
to fields you'd spent the years of your life among
and never seen before. It was one of those
one-night fairs, gone as quick as it came,
like love, maybe, or joy. Nobody knows
where it hailed from. It pitched here when I was young
and, like I say, I found out the way it feels
high up there, saw how the home place goes
turning under the night. There's no right name
for how it was. The farms never looked the same.

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Using Parents to Support Reading Instruction

by Patricia Edwards

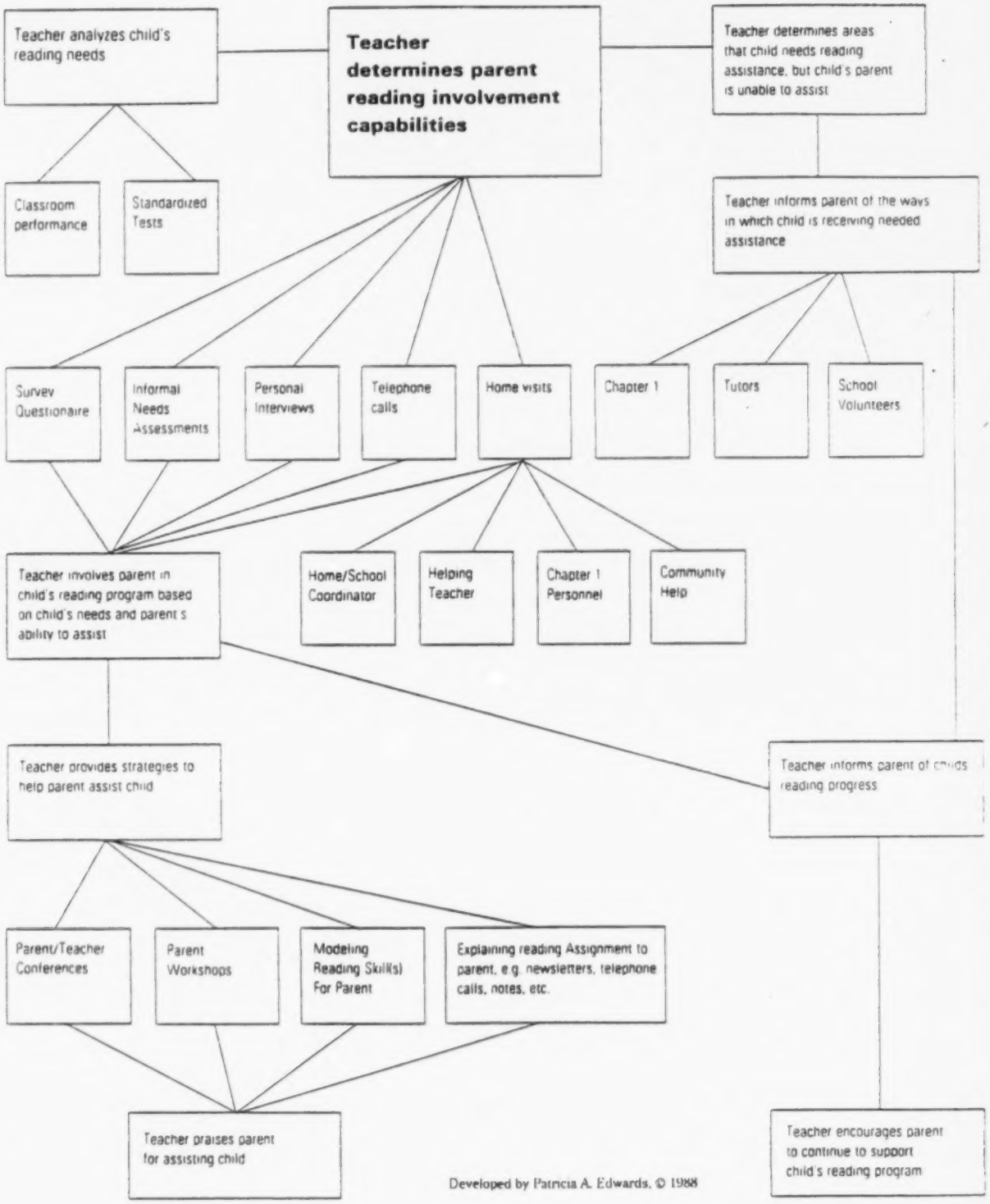
Activities that help involve parents in reading

- **Newspaper column for parents**
- **Parent resource rooms**
- **Reading progress letters**
- **Reading homework program**
- **Programs involving children and materials**
- **Reading pictures**

Effective Ways to Communicate with Parents about Reading

- **Kindergarten registration**
- **Reading progress letters, notes, and conferences**
- **Parent brochures or pamphlet**
- **Parent activity sheets**
- **Parent conferences on test results**
- **Reading and shopping lists**
- **Media...newspaper, programs, television**
- **Booklets and handbooks**
- **Courses and workshops**
- **"Calendar" of activities**
- **Open door policy or "be my guest"**
- **Bumper stickers**
- **Home learning kits**
- **Reading advisory councils**

Edwards Model for Communicating with Diverse Parent Populations


Teacher analyzes child's reading needs
Teacher determines parent reading involvement capabilities
Teacher determines areas that child needs reading assistance, but child's parent is unable to assist
Classroom performance
Standardized Tests
Teacher informs parent of the ways in which child is receiving needed assistance
Survey Questionaire
Informal Needs Assessments
Personal Interviews
Telephone calls
Home visits
Chapter 1
Tutors
School Volunteers
Teacher involves parent in child's reading program based on child's needs and parent's ability to assist
Home/School Coordinator
Helping Teacher
Chapter 1 Personnel
Community Help
Teacher provides strategies to help parent assist child
Teacher informs parent of child's reading progress
Parent/Teacher Conferences
Parent Workshops
Modeling Reading Skill(s) For Parent
Explaining reading Assignment to parent, e.g. newsletters, telephone calls, notes, etc.
Teacher praises parent for assisting child
Teacher encourages parent to continue to support child's reading program

Developed by Patricia A. Edwards, © 1988

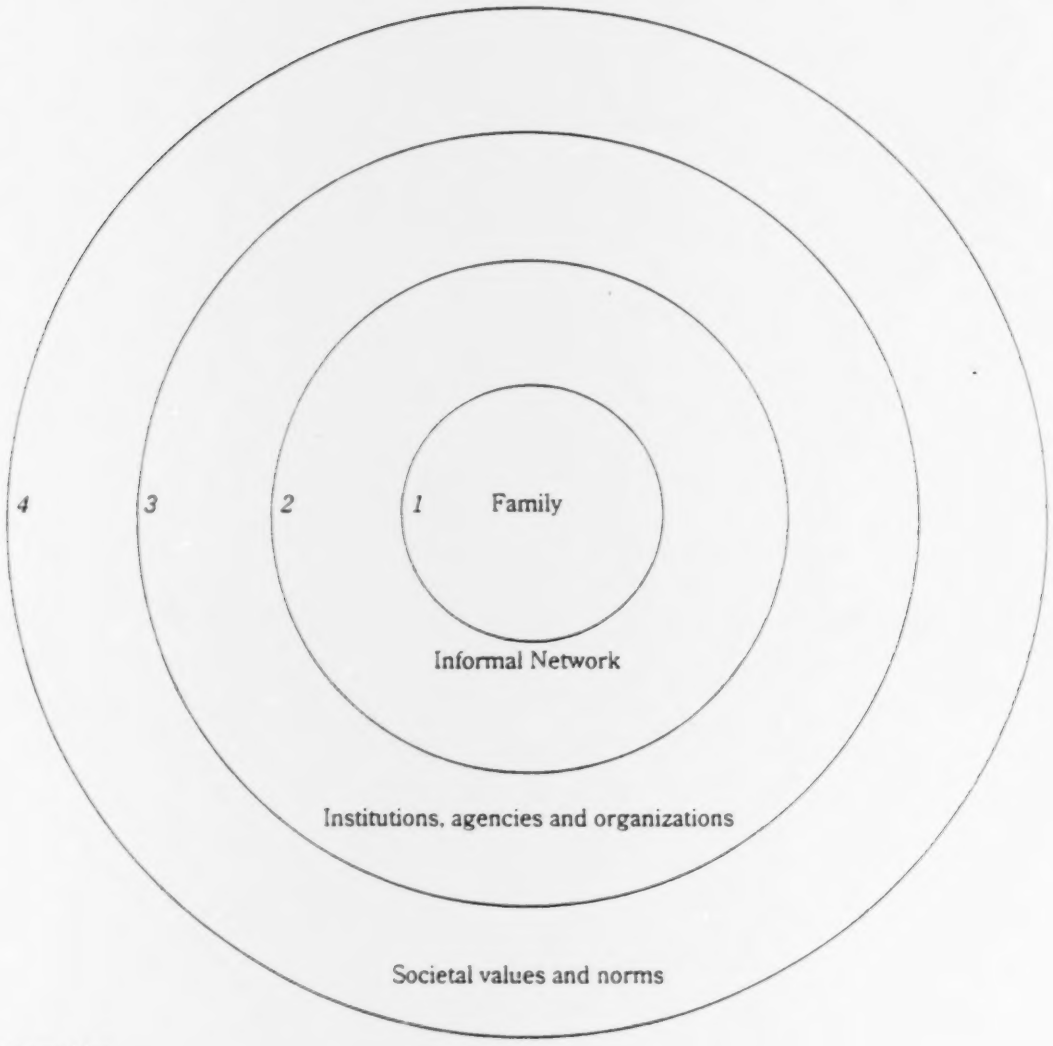
Parental Empowerment

The Definition of Empowerment

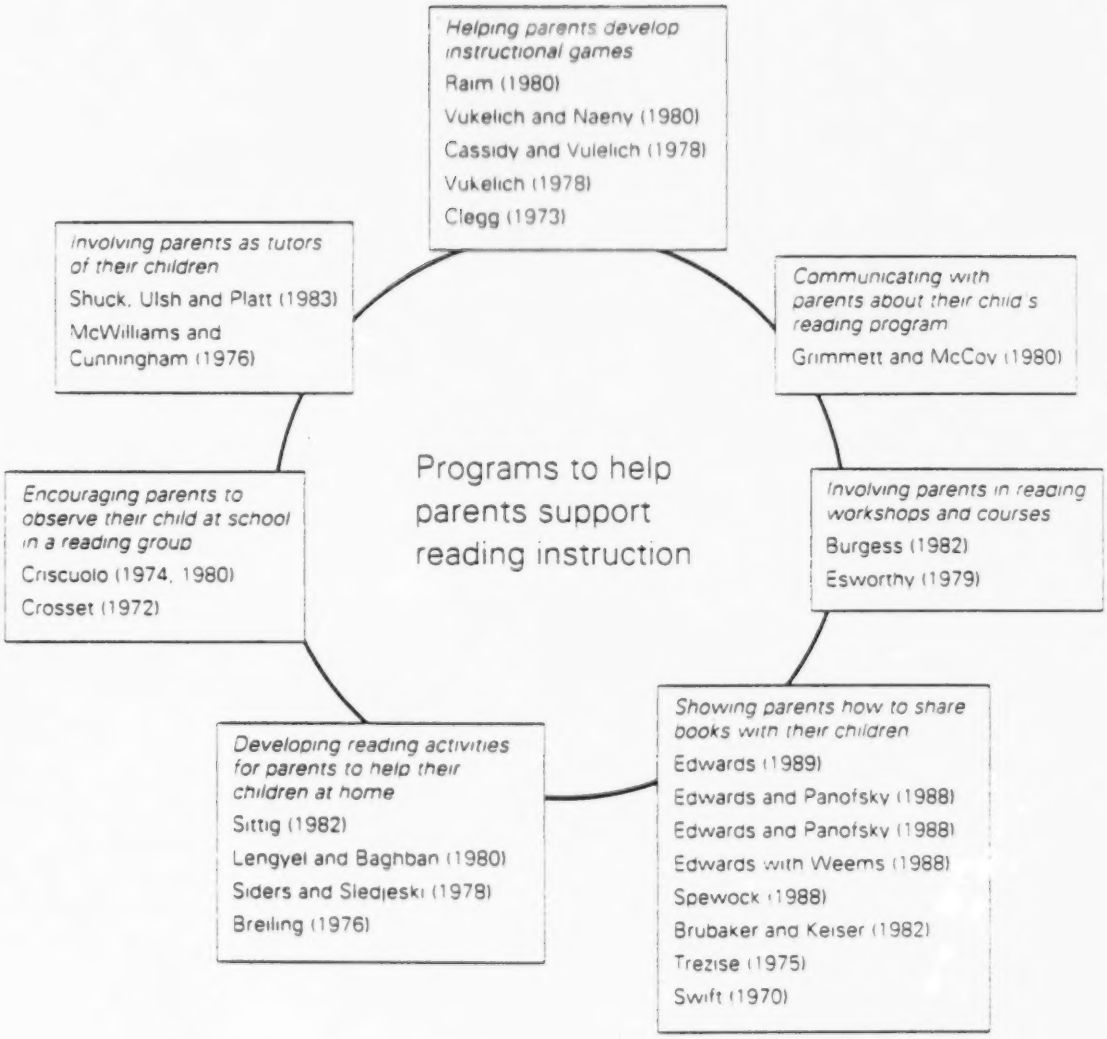
Over time, as people's concepts of themselves change, their perceptions of others and of their social worlds change also. As a result of their improved self-perceptions and increased skills, they are able to take greater control and responsibility in all levels of their social worlds.

Schematically, the social world model provides a useful visualization of the empowerment over the long term. This model illustrates the people and environmental forces that affect a person. Each larger circle represents a less immediate force. The inner circle represents the person's immediate family, usually people who live in his or her household. The next larger circle represents the individual's informal network: people who influence him or her directly, either positively or negatively. Relatives and friends are a part of this network, but it might also include teachers or religious leaders with whom the individual has a personal relationship. The third circle represents institutions, agencies, or organizations that affect the person, sometimes only indirectly. The largest circle includes the societal values and norms that affect individuals.

World of the parent



Developed by
Urie Bronfenbrenner,
Moncrieff Cochran, and
William Cross, Jr.
of Cornell University


Helping parents develop instructional games
Raim (1980)
Vukelich and Naeny (1980)
Cassidy and Vulelich (1978)
Vukelich (1978)
Clegg (1973)
Communicating with parents about their child s reading program
Grimmett and McCoy (1980)
Involving parents in reading workshops and courses
Burgess (1982)
Esworthy (1979)
Showing parents how to share books with their children
Edwards (1989)
Edwards and Panofsky (1988)
Edwards and Panofsky (1988)
Edwards with Weems (1988)
Spewock (1988)
Brubaker and Keiser (1982)
Trezise (1975)
Swift (1970)
Developing reading activities for parents to help their children at home
Sittig (1982)
Lengyel and Baghban (1980)
Siders and Siedjeski (1978)
Breiling (1976)
Encouraging parents to observe their child at school in a reading group
Criscuolo (1974, 1980)
Crosset (1972)
Involving parents as tutors of their children
Shuck, Ulsh and Platt (1983)
McWilliams and Cunningham (1976)
Programs to help parents support reading instruction

Learning in Think in Second Language Instruction

by Edward A. De Avila

Learning to think in a second language is no different than learning to think in the first place. Research and experience suggest that there are three elements that underlie the process in school: (1) interest and motivation, (2) intelligence and development, and (3) psychosocial access to learning. Interest, intelligence, and access are all necessary for academic success. However, viewed in isolation, each is insufficient to explain or facilitate performance. Academic excellence results from the combination of the three, especially when it comes to the design and delivery of programs.

Interest and Motivation

Children like to do things that help them gain a sense of mastery over their environment. Almost 30 years ago, Robert White (1959) called this intrinsic need "effectance." The role of education, whether it be in the home or the school, is to assist in this process. We begin by asking: What kinds of things do children between the ages of 3 and 12 like to do? Similarly, what kinds of things found in the popular culture carry an educational value across different developmental and interest levels? And finally, what are the kinds of things that are of value to parents and of interest to children that are least influenced by linguistic, cultural and geographic differences? These questions suggest that some of the most universally held interests are found in the areas of science and mathematics. Probably all children have wondered about where the sun goes on a rainy day, why water boils, or why things always fall down. Not only do science and math offer educationally meaningful content, they offer an excellent context in which to foster the development of higher-order thinking skills.

Intelligence and Development

We define intelligence as what a child can do with what she or he knows. Explained in this way, there are two important aspects in understanding a child's level of intellectual development. The first is what a child knows and brings to the educational setting; the second is what the child can do with the knowledge. In a limited sense, intelligent behavior is an interaction of the child's repertoire and capacity.

Repertoire is all those things a child brings to the educational setting, the various strategies characteristic of his or her development. This includes his or her language and culture, an understanding of the social demands of the classroom and/or test situation, as well as a

host of other skills associated with family background. A child's repertoire is the machinery that runs his or her intellectual mill. A child with a very rich and elaborate repertoire is in a better position to behave intelligently, because she or he has a greater number of intellectual and social strategies from which to draw.

Capacity is the ability to integrate or to separate things in order to produce novel responses. When a child enters a testing situation (particularly one involving an I.Q. test), it is assumed that he or she has been exposed to the content of the test. If, however, the child comes from a home where English is not spoken, there is a good chance that he or she has not learned sufficient English to deal with much of the test's content. Thus, it is virtually impossible to tell whether the child has missed a test question because he or she does not know or understand the concept, or whether the child does not possess sufficient language skill to understand the instructions needed to complete the test. Similarly, during classroom recitation , if the teacher addresses the child and the child does not respond, we do not know whether the child did not understand the English words used by the teacher or did not have the intellectual wherewithal to answer the question.

If intelligence is what children can do with what they have been exposed to, then how is comparison of children possible? In experiments conducted over the past fifteen years in Canada, Mexico, and the United States, we have found that when the effects of prior experience (i.e., repertoire) are controlled through the use of pretraining procedures, many of the differences in intellectual ability between ethnolinguistic groups disappear. In other words, ethnolinguistic group differences in intellectual ability are largely a function of repertoire differences and not intelligence per se.

Academically successful children have acquired many strategies for dealing with subject matter in school. They are not necessarily any more intelligent; they are simply in a better position to behave intelligently. That is, they have more strategies. We believe that one of the major purposes of education is to facilitate the development of generalizable strategies that will serve the student regardless of background characteristics. Consequently, we need to enhance the development or acquisition of intellectual strategies (i.e., to increase the repertoire) that can be applied in a variety of educational and other settings. Although unsuccessful students may be lacking in academic strategies, the problem is one of repertoire and not of capacity. Students have the necessary capacity; they have just not had sufficient experience.

We try to help children acquire repertoire skills by taking their natural interest in how the world works and focusing on mathematical and scientific processes. In this approach, we distinguish between two

types of learning. That is, we differentiate between the facts, labels, and names found in science and the concepts and intellectual processes underlying them. We make clear distinctions between the word and its meaning, or between the label for an object and its function. Labels vary, functions do not. Except in the rarest of circumstances, the properties of water and geometry, for example, remain invariant to time and place. Water is as affected by gravity in North America as it is in Katmandu. Similarily, a right angle is the same throughout the world. One learns the names of objects in a way different from the way in which one understands the objects at a conceptual level. Learning concepts and processes involves active participation and interaction with others, whereas learning the names of objects can take place in isolation.

Access to Learning

Access can be discussed in linguistic, psychological, and sociological terms. At the simplest and sociological level, it can be considered in terms of socioeconomic status (SES). That is, some children, simply because their families are of higher SES, are exposed to educational and quasi-educational experiences that have a beneficial impact on intellectual performance.

Psychologically, however, it is worthwhile to recall differences between the two types of learning discussed earlier. In recent research on learning, old distinctions between list learning (memorization) and concept formation have become blurred—some writers even argue that all learning can be considered the same. At the classroom level, however, it is important to remember that there is a difference between memorizing a list of names and forming concepts about previously unknown relationships. We believe that compensatory programs tend to emphasize the former at the expense of the latter and that such emphasis constitutes a "denial of access." This problem is particularly evident in programs based on the concepts of "direct instruction," which argues in favor of highly structured, large group instruction whose educational content is of a low cognitive level.

As a result, there has been a tendency at the classroom level to develop compensatory programs aimed at improving basic skills that, from our point of view, can deny access to the kinds of experiences and processes necessary to develop thinking skills of a higher order. Underlying this view is the belief that deficiencies must first be remediated and that children need to know their facts before taking on more abstract material. These assumptions are particularly evident in the case of language minority students, where proficiency in English is used as a prerequisite for participation in classes involving more complex material. The inevitable result is continued failure because programs emphasizing rote skills tend neither to be at levels commen-

surate with students' level of intellectual development nor interesting in a personal sense.

Linguistically, access has to do with the student's ability to communicate in the classroom. Students unable to participate in oral discussion are denied access, regardless of the presumption of full "opportunity." In other words, the opportunity to be in a math class does not provide access if students cannot participate because they cannot understand the language of instruction. Researchers have found that English proficiency is a strong predictor of academic success among language minority students. It does not follow, however, that English must be mastered before participation can take place.

One of the strongest predictors of conceptual learning (as distinct from memory work) is the amount of time students spend talking and working together. In a teacher-centered classroom, there is little chance for dialogue among students or with the teacher, who simply does not have the time to interact with regularity. Furthermore, if the teacher does not speak a child's language, there is little chance that the student will be called on for recitation except to answer basic factual questions. If oral English proficiency is viewed as a dimension of social status, which is more than likely in a linguistically heterogeneous class dominated by native English speakers, the student with limited or no English is relegated to a lower social status in the classroom. The net result is a lowered frequency of verbal interaction, a further distancing between the limited English speaker and the rest of the students, and a presumption of lower overall ability.

A Cooperative, Hands-on Approach: How It Works

A cooperative, hands-on approach provides children with a greater access to learning. It promotes conceptual development, not list learning or memory work. It promotes academic, linguistic, and socially heterogeneous classroom groups; not tracking based on language, intelligence or SES differences. It promotes effective instructional practices in topics students are interested in, not rote instruction in fragmented, isolated skills. Finally, it promotes interactive, not passive relationships between teachers and students.

Facilitating and Managing Instruction

The instructional role of the teacher in this approach is cardinal; without the teacher there is no program. However, the teacher's role in the cooperative learning classroom is slightly different from that in a conventional classroom. In brief, the role of the teacher is to contribute to the development of learning sets and to focus students' perceptual apparatus on the essential features of a task. This facilitation of learning is effectively accomplished by asking constructive questions

and providing quick feedback. At the same time, the teacher serves as a manager, who is responsible for the smooth running of the classroom.

Guiding the Learning Process

With the exception of the initial orientation and the final wrap-up of each learning activity, the teacher is not the focal point in the classroom. Moving from one learning center to another, the teacher is the supportive catalyst of the learning process rather than a source of expected answers. The teacher generates student interaction; asks questions; talks about problem-solving strategies, role performance, and cooperative behaviors; and generalizes concepts or principles in order to maximize the development of problem-solving skills and increase interdependence among students.

Assisting Students

The teacher assists learning by sharing information, helping students analyze phenomena or problems, and extending and generalizing concepts or relationships. In sharing information, the teacher describes in detail his or her observation of students' actions. For example, the teacher might observe a group working on graphs and comment, "I see Susana got the same results by putting her data in columns instead of rows."

The teacher also prompts students to describe and share their information with others by asking open-ended questions such as: "What other ways are there to...?"; "How can you prove that...?"; "How did you make...?"; "What did you find out?"

The teacher helps students to examine a problem in terms of its parts and interrelationships—without giving the answer. For instance, the teacher may observe a group of students having problems making a flashlight and may assist them by saying, "Not everyone's flashlight is working. Have you tested each part separately? Try trading the parts that do work, you might be able to figure out how to get it working."

When experiments do not follow the predicted path, there is good opportunity for students to attempt to discover why, to think more, to plan better, and to learn more. In a truly scientific sense, every experiment "works" even though it may not take the anticipated course. It is equally important that students be given opportunities to react to a situation. This allows them to think aloud and to hear how others plan, organize, predict and interpret information.

In extending, the teacher helps students apply experiences to general concepts, principles, or rules. Generalizations come as a result of many experiences, observations, and experiments. The complexity of the generalizations will, in part, depend on the maturity of the students. Some examples for stimulating generalizations are: "What other objects could you use for...?"; "What other ways are there of...?";

"It is generally believed that...": "What can you say about what you found out?": "Some people say...": "Remember how we found some of the answers when we worked on problems about...?" "How can we use what we learned in...?"

There are times when a teacher does not answer a question directly but instead asks another question, thus unobtrusively guiding the learning process. Finally, it is important for the teacher to challenge students when they make sweeping generalizations based on one experiment, such as "Magnets will pick up all metals." After experimenting with different metals, the teacher might ask, "What kind of metals does the magnet pick up?" This question will help to stimulate more discussion and further experimentation.

Giving Effective Feedback

Providing students with specific, evaluative information on their performance is an essential component of the learning process. The teacher confirms or verifies the students' accomplishments, needs, or social behavior. Feedback may focus on the student's performance on a task, worksheet, skill or general progress.

The concept of effective feedback is derived from sociopsychological and organizational theories that propose that effective feedback increases the level of satisfaction, as well as the amount of effort one is willing to put it to work. However, in order for feedback to be effective it must be frequent, well-timed, specific, authentic, and sincere.

Developing Cooperative Work Skills

Many educators see interaction among children as one of the chief motivators of intellectual development. When experiencing the different perspectives of their peers, children can examine their own environment more objectively. Cooperative learning activities require group work, and therefore, proper steps must be taken to promote learning and assimilation of new concepts in a group setting. Students must have the opportunity to acquire the vocabulary and resources to achieve a requisite level of intellectual discourse. Furthermore, the experience must be structured so that students will listen, explain, and provide feedback for one another. Practice in cooperation is essential.

Cooperative group work may involve a radical change for students who have internalized regular classroom behavior in which they are told to do their own work, keep their eyes to the front, and stay quiet. In the classroom we envisage, students are responsible for their own behavior but also, to a large extent, for the group's behavior. Students learn to ask for help and to ask for each other's opinions, to listen to others, to explain, and to demonstrate how to do things.

Assigning Roles and Responsibilities

Fundamental to cooperative learning group work is the recognition of each student's role and responsibility in the group. The basic objective is to avoid the creation of status differences between groups and to foster a recognition of interdependence. Typically, group assignments can be made weekly during the introduction to a theme; individual role assignments can be made daily or weekly.

The first step in assigning role is to form groups. A work group ideally consists of four to six students of varying academic and linguistic levels. Work groups should not consist of either high or lower achievers exclusively. In bilingual settings, groups should not, as policy, be exclusively composed of limited-English or English proficient students.

Among the many ways to assign students to work groups is on the basis of achievement and language skills, on a representative basis. Another way to form groups is to have students draw straws. No matter what method is employed in group formation, it is important that students see that it is done in a totally impartial manner and not on the basis of predetermined status. It is critical that the procedure not result in ability groups in which one group dominates over another or is seen as the high-status group.

It is essential that the children understand that their active participation is critical to the success of the group. Although some of them may be better at certain tasks, the point remains that every student has something to contribute. Just as students must learn to help one another, they must also learn to help the teacher in coordinating all aspects of the program. A classroom represents a complex social environment, one that requires delegation of authority and sharing responsibility. The main purpose of teaching students how to work cooperatively in groups is to demonstrate the value of collective enterprise and to promote interaction among individuals acting as equals. It is critical that the students understand that their participation and contributions, however, small, are important to the success of the group.

The Finding Out/Descubrimiento (FO/D) Approach

Finding Out/Descubrimiento is an integrated program that develops mastery of both oral and written communication. It promotes either English or Spanish proficiency from a natural, meaningful perspective in grades 2 to 5.

FO/D was specifically designed to meet the needs of students from diverse cultural, academic, and linguistic backgrounds. It is an

educational management system for a complex yet coordinated instructional program which enables the teacher to accommodate differences and move students simultaneously in the same direction. Children acquire a broad repertoire of skills by capitalizing on their natural interests. In a first phase of the program students are introduced to the social aspects of working together cooperatively and fulfilling specific roles in small, randomly mixed groups. Students learn to ask for help and give help when asked, to solicit other students' opinions, to listen to others, and to show each other how to do things.

Specific activities are implemented in a second phase. Multiple groups, or learning centers, operate simultaneously under the direction of the teacher. The role of the teacher in FO/D is that of a manager and a supportive catalyst of the learning process. Moving from center to center, he or she provides essential direction while:

- Generating student interaction
- Asking questions
- Delegating responsibility
- Focusing discussion on problem-solving strategies, role performance and cooperative behaviors
- Generalizing concepts and principles to the rest of the curriculum

Activities have a defined structure and specific goals, yet they contain elements which allow each student to extend the lesson to his/her highest level of proficiency and academic ability. In this way the same topic is as effective with the limited-English student as it is with the English proficient.

Finding Out/Descubrimiento (FO/D) has been extensively pilot-tested at the Bilingual Consortium Schools of San Jose and thoroughly evaluated by the Center for Education Research at Stanford (CERAS), which found that children showed highly significant improvement in problem-solving reading skills, and English proficiency. On tests of reading, language and mathematics as well as on problem-solving, "low achievers" gained as much in absolute achievement as "high achievers."

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Reconnecting Kids to Learning

by Donna Alvermann

Chart #1

Anticipation/Reaction Guide

Before viewing this segment of the teleconference, place a check (√) in the "Before" column next to each statement with which you agree. After viewing the segment, you will be asked to place an asterisk (*) in the "After" column next to each statement with which you agree.

Before	*After*	
_____	_____	1. When a school loses its capacity to accommodate the growing diversity of its students, the school structure needs to change.
_____	_____	2. Reconnecting students to learning entails creating a sense of belonging and giving more attention to how students will use what they learn in other settings.
_____	_____	3. It is impossible to bring "burnt out" students back to traditional secondary school programs.

Chart #2

Goals of the Program

1. To build students' self-esteem
2. To increase the percentage of students graduating from Oglethorpe High School
3. To remove the "age/grade" stigma
4. To increase teacher expectations for students in the program
5. To facilitate communication between the home and the school
6. To develop a program of study that nurtures a partnership between school and community

Reactions/Comments/Questions

_____

_____

_____

_____

Chart #3

Four Ways to Foster Educational Growth Among "Burnt Out" Students

The following recommendations are taken from Stephen F. Hamilton's "The Secondary School in the Ecology of Adolescent Development" in E. W. Gordon (Ed.). (1984). Review of Research in Education, Volume 11 (pp. 227-258). Washington, DC: American Educational Research Association.

1. Open up the school to the larger community and the experiences it can provide.
2. Increase the effectiveness of academic instruction through fuller use of instructional technology.
3. Give greater attention to the carryover of school learning to other settings.
4. Enlist the support of school, home, community, and peer groups.

The Choice and Challenge Program

Oglethorpe High School, Oglethorpe County, Georgia
Aubrey Finch, Principal

Oglethorpe High School began work in 1983 with the University of Georgia in developing a participatory decision-making process coordinated by the school's executive council, which is chaired and co-chaired by teachers. Since that date, the school has accomplished such goals as increased instructional time, improved student achievement, and decreased dropout rate. The latter goal remains a major priority, and the school and University have jointly received three consecutive grants from the Metropolitan Life Foundation, the Georgia State Department of Education, and the U.S. Office of Education. This effort has provided students with programs of personal attention, including particular attention to student advocacy; alternative curricula; a strengthening of the school program through community/business involvement; and an interdisciplinary team teaching "school within a school." As of the spring of 1988, the school had reduced its dropout rate by 54%.

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